## REMARKS

Claims 1-17 are now pending in the application. The amendments to the claims contained herein are of equivalent scope as originally filed and, thus, are not a narrowing amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### INFORMATION DISCLOSURE STATEMENT

The Examiner is respectfully requested to consider the art cited in applicants Information Disclosure Statement filed concurrently herewith.

### SPECIFICATION

The specification stands objected to for certain informalities. Applicants have amended the specification according to the Examiner's suggestions. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

### REJECTION UNDER 35 U.S.C. § 101

Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed

Claim 17 has been amended to recite a computer-readable medium and is now believed to be proper under current USPTO guidelines.

### REJECTION UNDER 35 U.S.C. § 112

Claim 8 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed.

The specific explanation of "thinning" is disclosed at paragraph [0162] of US 2005/0152583 (publication of the present application), which includes "co-efficients extracted with intervals – a radial direction".

**REJECTION UNDER 35 U.S.C. § 102**

Claims 1-5, 7, 8, 11-13 and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Oda (U.S. Pat. No. 6,542,624). This rejection is respectfully traversed.

Regarding the rejections under § 102 and § 103, our assertion is as follows:

For the feature of the claimed inventions "obtaining feature data and a pupil opening degree index from the acquired iris image", the Examiner has indicated Col. 4 Lines 11-13 of Oda. That part recites "verifying whether or not the photographed image of the eye exhibits biogenic response based on the life check code". The 'life check code" is the code for *controlling* the stimulation unit to inspect biogenic response of the subject's eye and is specifically described at Col. 12 Lines 9-20. But Oda fails to teach or suggest "obtaining a pupil opening degree index from the iris image".

For the feature of the claimed inventions "performing data registration for the registrant in an iris database using the **obtained feature** data and pupil opening degree Index", the Examiner has indicated Col. 4, Lines 14-24 of Oda. But that part merely recites:

> "being capable of determining the authenticity of an eye image depending on exhibiting biogenic response or not". Oda fails to teach or suggest "data registration using the feature data and pupil opening degree index".

For the feature of the claimed inventions "obtaining feature data to be collated by referring to registered data with the pupil opening degree index obtained in the

authentication process", the Examiner has indicated Col. 3, Lines 8-12 of Oda. But that part merely recites "matching a generated iris code and an iris code stored in the database". Oda fails to teach or suggest "obtaining feature data to be collated using the pupil opening degree index".

In addition, the Examiner states at pages 6-7 in the Office Action, the process of storing , retrieving and comparing the keys is part of the basic operation of a database. We assert the claimed inventions are entirely different from the basic operation of a database.

Specifically, regarding the iris authentication, according to the conventional way, feature data and ID identifier (name, serial number or the like) are stored in pairs in the iris database. During authentication, the iris database is retrieved using the ID identifier of the person to be authenticated. That is, the ID identifier corresponds to the unique key referred to by the Examiner.

In contrast, according to the claimed inventions, "pupil opening degree index", which has never been used in the conventional way, is used in registration and authentication, in addition to the ID identifier. Furthermore, "pupil opening degree index" is not used as the unique key identifying the person but is used for adapting light source environmental condition during the registration process to that during authentication process, according to the claimed inventions. Therefore, the claimed inventions are entirely different from the basic operation of an iris database.

And according to the claimed inventions, feature data determined according to the degree of opening of the pupil is obtained as an item to be

collated, irrespective of whether the pupil is in a contracted state or an expanded state at the time of authentication. Thus, sufficiently-accurate personal authentication with reduced false rejection rate can be carried out under various conditions. This effect of the claimed inventions can never be achieved in Oda.

**REJECTION UNDER 35 U.S.C. § 103**

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Flom et al. (U.S. Pat. No. 4,641,349). This rejection is respectfully traversed.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzaki (U.S. Pat. No. 6,614,919). This rejection is respectfully traversed.

Regarding the rejections under § 102 and § 103, our assertion is as follows:

For the feature of the claimed inventions "obtaining feature data and a pupil opening degree index from the acquired iris image", the Examiner has indicated Col. 4, Lines 11-13 of Oda. That part recites "verifying whether or not the photographed image of the eye exhibits biogenic response based on the life check code". The "life check code" is the code for controlling the stimulation unit to inspect biogenic response of the subject's eye and is specifically described at Col. 12, Lines 9-20. But Oda fails to teach or suggest "obtaining a pupil opening degree index from the iris image".

For the feature of the claimed inventions "performing data registration for the registrant in an iris database using the obtained feature data and pupil opening degree index", the Examiner has indicated Col. 4, Lines 14-24 of Oda. But that part merely recites "being capable of determining the authenticity of an eye image depending on

exhibiting biogenic response or not". Oda fails to teach or suggest "data registration using the feature data and pupil opening degree index".

For the feature of the claimed inventions "obtaining feature data to be collated by referring to registered data with the pupil opening degree index obtained in the authentication process", the Examiner has indicated Col. 3, Lines 8-12 of Oda. But that part merely recites "matching a generated iris code and an iris code stored in the database". Oda fails to teach or suggest "obtaining feature data to be collated using the pupil opening degree index".

In addition, the Examiner states at Page 6-7 in the Office Action, the process of storing, retrieving and comparing the keys is part of the basic operation of a database. We assert the claimed inventions are entirely different from the basic operation of a database.

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In contrast, according to the claimed inventions, "pupil opening degree index", which has never been used in the conventional way, is used in registration and authentication, in addition to the ID identifier. Furthermore, "pupil opening degree index" is not used as the unique key identifying the person but is used for adapting light source environmental condition during registration process to that during

authentication process, according to the claimed inventions. Therefore, the claimed inventions are entirely different from the basic operation of an iris database.

And according to the claimed inventions, feature data determined according to the degree of opening of the pupil is obtained as an item to be collated, irrespective of whether the pupil is in a contracted state or an expanded state at the time of authentication. Thus, sufficiently-accurate personal authentication with reduced false rejection rate can be carried out under various conditions. This affect of the claimed inventions can never be achieved in Oda.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: June 20, 2008

By _____
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